

REMARKS

In the non-final Office Action, the Examiner rejected claims 1-55 under 35 U.S.C. § 102(e) as anticipated by Nazarathy et al. (U.S. Patent No. 6,490,727).

By this Amendment, Applicants cancel claims 1-55 without prejudice or disclaimer and without acquiescing in the Examiner's rejection and add new claims 56-92. No new matter has been added. Claims 56-92 are pending.

Because claims 1-55 are canceled herein, the rejection of these claims based on Nazarathy et al. is moot. Applicants respectfully submit that new claims 56-92 are patentable over Nazarathy et al.

New independent claim 56, for example, is directed to a fiber node in a hybrid fiber-coax network located between an upstream facility and a plurality of cable modems. The fiber node comprises a cable modem termination system (CMTS) comprising a transmitter to transmit data to the cable modems as downstream analog radio frequency (RF) signals over a plurality of downstream channels, a receiver to receive upstream analog RF signals from the cable modems over a plurality of upstream channels and extract data from the upstream analog RF signals, and a processor, connected to the transmitter and the receiver, to provide the data to the transmitter, receive the extracted data from the receiver and send the extracted data to the upstream facility, and dynamically allocate a downstream channel or an upstream channel during operation of the fiber node.

Nazarathy et al. does not disclose or suggest the combination of features recited in claim 56. For example, Nazarathy et al. does not disclose or suggest a CMTS that

includes a processor to, among other things, dynamically allocate a downstream channel or an upstream channel during operation of the fiber node.

Nazarathy et al. discloses moving upstream digital burst receivers from the head end to the fiber nodes so that digital detection can be provided in the fiber nodes and the detected digital information can be transmitted in digital form from the fiber nodes to the head end (col. 9, lines 54-60). Nowhere does Nazarathy et al. disclose or suggest that any of the fiber nodes comprises a CMTS that includes a processor to, among other things, dynamically allocate a downstream channel or an upstream channel during operation of the fiber node, as required by claim 56.

For at least these reasons, Applicants submit that claim 56 is patentable over Nazarathy et al. Claims 57-73 depend from claim 56 and are, therefore, patentable over Nazarathy et al. for at least the reasons given with regard to claim 56. Claims 57-73 are also patentable for reciting other features not disclosed or suggested by Nazarathy et al.

Independent claim 74 recites features similar to, but possibly different in scope from, features recited in claim 56. Claim 74 is, therefore, patentable over Nazarathy et al. for at least reasons similar to reasons given with regard to claim 56. Claims 75-91 depend from claim 74 and are, therefore, patentable over Nazarathy et al. for at least the reasons given with regard to claim 74. Claims 75-91 are also patentable for reciting other features not disclosed or suggested by Nazarathy et al.

Independent claim 92 is directed to a hybrid fiber-coax network. The network comprises a cable system head end and a plurality of fiber nodes connected between a plurality of cable modems and the cable system head end. Each of the fiber nodes

comprises a transmitter to transmit data to the cable modems over a plurality of downstream channels, a receiver to receive upstream signals from the cable modems over a plurality of upstream channels and extract data from the upstream signals, and a processor, connected to the transmitter and the receiver, to provide the data to the transmitter, receive the extracted data from the receiver and send the extracted data to the cable system head end, and dynamically assign or configure a downstream channel or an upstream channel during operation of the fiber node.

Nazarathy et al. does not disclose or suggest the combination of features recited in claim 92. For example, Nazarathy et al. does not disclose or suggest a CMTS that includes a processor to, among other things, dynamically assign or configure a downstream channel or an upstream channel during operation of the fiber node.

Nazarathy et al. discloses moving upstream digital burst receivers from the head end to the fiber nodes so that digital detection can be provided in the fiber nodes and the detected digital information can be transmitted in digital form from the fiber nodes to the head end (col. 9, lines 54-60). Nowhere does Nazarathy et al. disclose or suggest that any of the fiber nodes comprises a CMTS that includes a processor to, among other things, dynamically assign or configure a downstream channel or an upstream channel during operation of the fiber node, as required by claim 92.

For at least these reasons, Applicants submit that claim 92 is patentable over Nazarathy et al.

In view of the foregoing amendments and remarks, Applicants respectfully request the Examiner's reconsideration of this application, and the timely allowance of the pending claims.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1070 and please credit any excess fees to such deposit account.

Respectfully submitted,

HARRITY & SNYDER, L.L.P.

By: 
Paul A. Harrity
Registration No. 39,574

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11350 Random Hills Road
Suite 600
Fairfax, Virginia 22030
(571) 432-0800

Customer Number: 44987